UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/584,334	SHIN ET AL.
	Examiner	Art Unit	
	JULIO PEREZ	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 March 2011</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>16-22</u> is/are allowed.

6)☒ Claim(s) <u>1,5 and 11-15</u> is/are rejected.

7)☒ Claim(s) <u>2-4, 6-10</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>03/29/2011</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This Office Action is in response to communication of 03/29/2011. Claims 1-22

are currently pending and have been considered below.

Response to Arguments

2.   Applicant's arguments, see Remarks, filed 03/29/2011, with respect to the

rejection(s) of claim(s) 1-22 under under Non-Final Rejection have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

Harvey et al (6,052,584) and Thompson et al (5,809,108) and Sylvain (2004/0008837).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Harvey et al (6,052,584) in view of Sylvain (2004/0008837).

        Regarding claim 1, Harvey discloses an apparatus for testing and analyzing a

base station having a smart antenna, which is for a WCDMA (Wideband Code Division

Multiple Access) mobile communication system, the apparatus comprising:

        a test analyzer body (col. 6, lines 5-12, "load box test units are placed centrally in

the cell areas," "box unit" is the "analyzer") configured for performing management of a

test call including channel establishment (col. 7, lines 5-9, provides a technician access

to effect changes or download test result data and analysis) or release of the base

station, for generating mass mobile communication multimedia test calls (col. 7, lines 67

- col. 8, line 1, "programmed to place as well as receive calls"),

and for measuring and analyzing an operational state of the system including

service-specific functions and performance of the system col. 7, lines 51-55,

"established to simulate as closely as possible a CDMA cellular network load to a typical

anticipated day-time traffic capacity", provides analysis of call traffic; it also processes

calls, ""to place as well as receive calls," col. 7, lines 67-col. 8, line 1);

and a test analyzer interface coupled to the base station and the test analyzer

(col. 7, lines 18-25, providing connection to stations for call results), the test analyzer

being configured for transmitting or receiving a protocol signal message, traffic, and

performance data between to the test analyzer body and the base station (col. 8, lines

34-37, 50-51, and col. 9, lines 31-36, describes collection of parameters during

operation of the system and producing results fro analysis, i.e., "data is collected and

the control programs are archived so that test may be accurately duplicated for late

comparison with later results," col. 9, lines 33-35).

Harvey does not specifically suggest mass mobile communication multimedia

test calls, however, **Sylvain** teaches monitoring and associating multimedia calls (par.

43, "monitoring incoming and outgoing multimedia calls").

Harvey and **Sylvain** are analogous art because they are from a similar field of

endeavor in testing the performance of communications systems. Thus, it would have

obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of **Harvey** to provide the number calls as related to multimedia for the purpose of including Internet calls in the analysis as taught by **Sylvain**.

Regarding claim 5, the combination discloses claim 1, wherein the test call includes a voice, video, or Internet multimedia call, the test call communicating with a mobile station according to a corresponding protocol (Harvey, includes voice calls, col. 7, line 67 col. 8, line 1).

5.   Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al (6,052,584) in view of Thompson et al (5,809,108).

Regarding claim 11, Harvey discloses a method for testing and analyzing a base station having a smart antenna, which is for a WCDMA mobile communication system, the method comprising:

generating (col. 4, lines 6-10, "generates voice sequences form both simulated mobile and landline ends."), by a test analyzer (col. 6, lines 5-12, "load box test units are placed centrally in the cell areas," "box unit" is the "analyzer"), a test call (col. 7,l.lines 23-25, the unit provides test calls, "box test units to answer incoming calls and provide connection to the PSTN") so as to enable an operator to directly connect to the base station and monitor performance of the system (col. 7, lines 5-9, provides a technician access to effect changes or download test result data and analysis);

generating a signal message used for the selected system (col. 4, lines 61-64, "test may be conducted with CDMA system operation.");

monitoring a call setup procedure according to the protocol signal message, or

processing the test call to analyze traffic (col. 7, lines 51-55, "established to simulate as

closely as possible a CDMA cellular network load to a typical anticipated day-time traffic

capacity", provides analysis of call traffic; it also processes calls, ""to place as well as

receive calls," col. 7, lines 67-col. 8, line 1); and

testing a function , performance, and an operational state of the base station

according to the analysis result of the traffic, and analyzing, by the test analyzer,

performance data according to the test result (col. 8, lines 34-37, 50-51, and col. 9, lines

31-36, describes collection of parameters during operation of the system and producing

results fro analysis, i.e., "data is collected and the control programs are archived so that

test may be accurately duplicated for late comparison with later results," col. 9, lines 33-

35).

Harvey does not specifically suggest selecting a protocol corresponding to a test

call input by the operator, however, **Thompson** teaches call generator to generate test

calls with a test call script, which may be entered by a user or operator, thus reads on

"selecting a protocol test call input by the operator," the calls may be used with respect

to "ISDN signaling techniques", i.e., a protocol; col. 3, lines 5-6, and 20-26).

Harvey and **Thompson** are analogous art because they are from a similar field

of endeavor in testing the performance of communications systems with a test unit.

Thus, it would have obvious to a person of ordinary skill in the art, at the time of

invention, to modify the teachings of **Harvey** for specifying a type of system to be under

test as taught by **Thompson** in order to specify the parameters under test for the

specific system under analysis.

Regarding claim 12, the combination discloses claim 11, further comprising:

transmitting the protocol signal message, the traffic, and the performance data (Harvey,

col. 3, lines 43-46, generates traffic and load simulation on cell of interest and

neighboring cells).

Regarding claim 13, the combination discloses claim 11, further comprising:

storing the signal message and the performance data in a database (Harvey, col. 7,

lines "permits downloading of test result data for central storage and analysis.").

Regarding claim 14, the combination discloses claim 11, wherein the test call

includes a voice, video, or Internet multimedia call, the test call communicating with a

mobile station according to a corresponding protocol (Harvey, col. 7, lines 67-col. Col. 8,

lines 1, "place as well as receive calls," thus, at least "voice" and communicates with a

mobile phone, col. 7, lines 33-34).

Regarding claim 15, the combination discloses claim 11, wherein an operational

state parameter tested in the step (e) is selected from a group consisting of a traffic

frame quality, a bit energy-to- noise ratio, an operational performance of the base

station system, and a mobile station location (col. 7, lines 53-56, "traffic load is

predetermined during the test," that is, call quality is concerned).

Allowable Subject Matter

6.   Claims 2- 4, 6-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the prior art, either singularly or in combination, teach or fairly suggest

wherein a test call processor for selecting a protocol corresponding to the test call,

analyzing a signal message for the protocol to monitor a call setup procedure, processing the test call to analyze traffic,

and monitoring the quality of the traffic according to the analysis result of the traffic;

a protocol processor for generating a signal message used for the selected protocol;

a data processor for analyzing and processing the performance data of the test call processor;

and a network interface for communicating with the test analyzer interface to transmit or receive the protocol signal message,

the traffic, and a performance message;

and wherein the test call processor comprises: a test call analyzer for selecting a corresponding protocol according to the test call;

a traffic analyzer for reporting the protocol signal message to the test call

analyzer to monitor the call setup procedure, or reporting the analysis result of the traffic

to the test call analyzer to monitor the quality of the traffic;

and a signal message database for storing the signal message in order.

7.   Claims 16-18, 19-22 are allowed.

Claims 16-18 and 19-22 were allowed previously. Pease refer to the office action

mailed on 12/02/2010.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JULIO PEREZ whose telephone number is (571)272-

7846. The examiner can normally be reached on 10AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/3/2011   /J. P./
                                                           Examiner, Art Unit 2617
/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617